

SENATE BILL 652

C5

2lr1967
CF HB 1186

By: **Senators Middleton, Young, Garagiola, Manno, Mathias, and Rosapepe**

Introduced and read first time: February 3, 2012

Assigned to: Finance

Committee Report: Favorable with amendments

Senate action: Adopted

Read second time: March 20, 2012

CHAPTER _____

1 AN ACT concerning

2 **Renewable Energy Portfolio Standard – Renewable Energy**
3 **Credits – Geothermal Heating and Cooling**

4 FOR the purpose of specifying that energy generated from a geothermal heating and
5 cooling system is eligible for inclusion in meeting the renewable energy portfolio
6 standard; entitling a certain person or entity to receive a renewable energy
7 credit under certain circumstances; ~~specifying the method by which energy~~
8 ~~generation and consumption shall be measured~~ specifying the methods by which
9 the Commission shall determine the energy savings of geothermal heating and
10 cooling systems; requiring geothermal heating and cooling system installation
11 to comply with certain standards; defining a certain term; altering the
12 definition of a certain term; providing for the application of this Act; and
13 generally relating to geothermal heating and cooling systems.

14 BY repealing and reenacting, without amendments,
15 Article – Public Utilities
16 Section 7–701(a)
17 Annotated Code of Maryland
18 (2010 Replacement Volume and 2011 Supplement)

19 BY adding to
20 Article – Public Utilities
21 Section 7–701(c–1) and 7–704(h)
22 Annotated Code of Maryland
23 (2010 Replacement Volume and 2011 Supplement)

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.

Underlining indicates amendments to bill.

~~Strike out~~ indicates matter stricken from the bill by amendment or deleted from the law by amendment.



1 BY repealing and reenacting, with amendments,
2 Article – Public Utilities
3 Section 7–701 (l)
4 Annotated Code of Maryland
5 (2010 Replacement Volume and 2011 Supplement)

6 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF
7 MARYLAND, That the Laws of Maryland read as follows:

8 **Article – Public Utilities**

9 7–701.

10 (a) In this subtitle the following words have the meanings indicated.

11 **(C–1) “GEOTHERMAL HEATING AND COOLING SYSTEM” MEANS A SYSTEM**
12 **THAT:**

13 **(1) EXCHANGES THERMAL ENERGY FROM GROUNDWATER OR A**
14 **SHALLOW GROUND SOURCE TO GENERATE THERMAL ENERGY THROUGH A**
15 **GEOTHERMAL HEAT PUMP OR A SYSTEM OF GEOTHERMAL HEAT PUMPS**
16 **INTERCONNECTED WITH ANY GEOTHERMAL EXTRACTION FACILITY THAT IS:**

17 **(I) A CLOSED LOOP OR A SERIES OF CLOSED LOOP SYSTEMS**
18 **IN WHICH FLUID IS PERMANENTLY CONFINED WITHIN A PIPE OR TUBING AND**
19 **DOES NOT COME IN CONTACT WITH THE OUTSIDE ENVIRONMENT; OR**

20 **(II) AN OPEN LOOP SYSTEM IN WHICH GROUND OR SURFACE**
21 **WATER IS CIRCULATED IN AN ENVIRONMENTALLY SAFE MANNER DIRECTLY**
22 **INTO THE FACILITY AND RETURNED TO THE SAME AQUIFER OR SURFACE WATER**
23 **SOURCE;**

24 **(2) MEETS OR EXCEEDS THE CURRENT FEDERAL ENERGY STAR**
25 **PRODUCT SPECIFICATION STANDARDS;**

26 **(3) REPLACES OR DISPLACES INEFFICIENT SPACE OR WATER**
27 **HEATING SYSTEMS WHOSE PRIMARY FUEL IS ELECTRICITY OR A NONNATURAL**
28 **GAS FUEL SOURCE;**

29 **(4) REPLACES OR DISPLACES INEFFICIENT SPACE COOLING**
30 **SYSTEMS THAT DO NOT MEET FEDERAL ENERGY STAR PRODUCT**
31 **SPECIFICATION STANDARDS;**

1 **(5) IS MANUFACTURED, INSTALLED, AND OPERATED IN**
2 **ACCORDANCE WITH APPLICABLE GOVERNMENT AND INDUSTRY STANDARDS;**
3 **AND**

4 **(6) DOES NOT FEED ELECTRICITY BACK TO THE GRID.**

5 (1) “Tier 1 renewable source” means one or more of the following types of
6 energy sources:

7 (1) solar energy, including energy from photovoltaic technologies and
8 solar water heating systems;

9 (2) wind;

10 (3) qualifying biomass;

11 (4) methane from the anaerobic decomposition of organic materials in
12 a landfill or wastewater treatment plant;

13 (5) geothermal, **INCLUDING ENERGY GENERATED THROUGH**
14 **GEOTHERMAL EXCHANGE FROM OR THERMAL ENERGY AVOIDED BY,**
15 **GROUNDWATER OR A SHALLOW GROUND SOURCE;**

16 (6) ocean, including energy from waves, tides, currents, and thermal
17 differences;

18 (7) a fuel cell that produces electricity from a Tier 1 renewable source
19 under item (3) or (4) of this subsection;

20 (8) a small hydroelectric power plant of less than 30 megawatts in
21 capacity that is licensed or exempt from licensing by the Federal Energy Regulatory
22 Commission;

23 (9) poultry litter-to-energy;

24 (10) waste-to-energy; and

25 (11) refuse-derived fuel.

26 **7-704.**

27 **(H) (1) ENERGY FROM A GEOTHERMAL HEATING AND COOLING**
28 **SYSTEM IS ELIGIBLE FOR INCLUSION IN MEETING THE RENEWABLE ENERGY**
29 **PORTFOLIO STANDARD.**

1 **(2) A PERSON SHALL RECEIVE A RENEWABLE ENERGY CREDIT**
2 **EQUAL TO THE AMOUNT OF ENERGY, CONVERTED FROM BTUS TO**
3 **KILOWATT-HOURS, THAT IS GENERATED BY A GEOTHERMAL HEATING AND**
4 **COOLING SYSTEM FOR SPACE HEATING AND COOLING OR WATER HEATING IF**
5 **THE PERSON:**

6 **(I) OWNS AND OPERATES THE SYSTEM;**

7 **(II) LEASES AND OPERATES THE SYSTEM; OR**

8 **(III) CONTRACTS WITH A THIRD PARTY WHO OWNS AND**
9 **OPERATES THE SYSTEM.**

10 ~~**(3) THE TOTAL AMOUNT OF ENERGY GENERATED AND CONSUMED**~~
11 ~~**FOR A GEOTHERMAL HEATING AND COOLING SYSTEM SHALL BE MEASURED BY**~~
12 ~~**AN ONSITE METER FOR THE SYSTEM'S COEFFICIENT OF PERFORMANCE.**~~

13 **(3) TO DETERMINE THE ENERGY SAVINGS OF A GEOTHERMAL**
14 **HEATING AND COOLING SYSTEM FOR A RESIDENCE, THE COMMISSION SHALL:**

15 **(I) IDENTIFY AVAILABLE INTERNET-BASED ENERGY**
16 **CONSUMPTION CALCULATORS DEVELOPED BY THE GEOTHERMAL HEATING AND**
17 **COOLING INDUSTRY;**

18 **(II) COLLECT THE FOLLOWING DATA PROVIDED IN THE**
19 **RENEWABLE ENERGY CREDIT APPLICATION THAT:**

20 **1. DESCRIBES THE NAME OF THE APPLICANT AND**
21 **THE ADDRESS AT WHICH THE GEOTHERMAL HEATING AND COOLING SYSTEM IS**
22 **INSTALLED; AND**

23 **2. PROVIDES THE ANNUAL BTU ENERGY SAVINGS**
24 **ATTRIBUTABLE TO HOME HEATING, COOLING, AND WATER HEATING; AND**

25 **(III) IN DETERMINING THE ANNUAL AMOUNT OF RENEWABLE**
26 **ENERGY CREDITS AWARDED FOR THE GEOTHERMAL HEATING AND COOLING**
27 **SYSTEM, CONVERT THE ANNUAL BTUS INTO ANNUAL MEGAWATT HOURS.**

28 **(4) TO DETERMINE THE ENERGY SAVINGS OF A NONRESIDENTIAL**
29 **GEOTHERMAL HEATING AND COOLING SYSTEM, THE COMMISSION SHALL:**

30 **(I) USE THE GEOTHERMAL HEATING AND COOLING**
31 **ENGINEERING TECHNICAL SYSTEM DESIGNS PROVIDED WITH THE RENEWABLE**
32 **ENERGY CREDIT APPLICATION; AND**

1 **(II) IN DETERMINING THE ANNUAL AMOUNT OF RENEWABLE**
2 **ENERGY CREDITS AWARDED FOR THE GEOTHERMAL HEATING AND COOLING**
3 **SYSTEM, CONVERT THE ANNUAL BTUS INTO ANNUAL MEGAWATT HOURS.**

4 **(4) (5)** A GEOTHERMAL HEATING AND COOLING SYSTEM SHALL
5 BE INSTALLED IN ACCORDANCE WITH APPLICABLE STATE WELL CONSTRUCTION
6 AND LOCAL BUILDING CODE STANDARDS.

7 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall apply only
8 to geothermal heating and cooling systems that are commissioned on or after ~~July 1,~~
9 ~~2012~~ January 1, 2013.

10 SECTION 3. AND BE IT FURTHER ENACTED, That this Act shall take effect
11 October 1, 2012.

Approved:

Governor.

President of the Senate.

Speaker of the House of Delegates.